

Serial No.: 09/469,499

Amendment dated October 29, 2003
Reply to Office Action of July 29, 2003**REMARKS****New Matter**

Prior to addressing the nature of the present invention and distinctions thereof from the prior art, it is noted that, in amending the specification in the paper filed July 14, 2003, the paragraph beginning at page 2, line 12 of the specification was inadvertently omitted through typographical error. In the outstanding Official Action, the Examiner states that "the removal of the second of three paragraphs beginning at page 1, line 14 introduces new matter."

The Examiner's statement is understood as referring to removal of the second, rather than the first, paragraph removed (inadvertently) by the prior paper. Accordingly, in response to the Examiner's objection to the prior amendment, and to the requirement for canceling the new matter, the second deleted paragraph is re-inserted.

Drawing

As requested, a replacement drawing is provided herewith, in the appendix, implementing the change to Fig. 11 as approved by the Examiner.

Prior Art Rejection

In the Action, the Examiner rejects each of the claims pending in the application under 35 USC 102(b), asserting that the claims are anticipated that by Cookson et al. USP 5,463,565. More specifically, the Examiner refers to Figs. 2-7 of the reference and states that the same reproduction apparatus which provides reproduction protection also operates on main data.

The Examiner further states that this apparatus includes means for detecting medium protection data such as rating, means for detecting protection position information such as version, means for generating apparatus protection data (81), means for defining a protection level (shown at Fig. 5C), and means for executing reproduction (shown at Fig. 7).

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Thus, the Action is asserting that information recorded in the lead-in portion of a recording disk such as an optical disk, such as rating information and version information, corresponds to the medium protection data and the protection position information of the present invention.

Applicant courteously traverses the rejection in view of a number of differences between the present invention and the Cookson disclosure. To the extent necessary, the claim amendment provided herein clarifies such distinctions.

For example, Cookson fails to disclose or suggest that a single original signal, or a single set of main data, is being protected and instead merely identifies different alternative single signals which are recorded together.

add (It is noted that, as has been discussed during prior prosecution, applicant's invention provides for protection, or prevention of reproduction, decoding, playback or the like, of particular parts or segments (portions) of a single signal representing particular information. On the other hand, as noted from the following quotations, it is quite clear that the Cookson disclosure teaches that the entire information is provided in multiple formats, and that rating information is used to "allow a single disk to contain multiple versions (e.g., R-rated and PG-rated) of the same motion picture" and to play back the appropriate version. As clearly disclosed, the system permits "Play of multiple versions, e.g., PG-rated and R-rated, of the same motion picture from the same disk, with selective automatic parental disablement of R-rated play. "

Thus, rather than protecting information at particular positions on the medium, or at particular portions of a reproduced image, the applied art effectively provides "a key

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and lock mechanism, shown symbolically by the numeral 81, which is referred to herein as the 'parental lock' option. If the lock is turned on, then R-rated motion pictures will not play."

As is apparent from the foregoing, Cookson thus provides a system which effectively utilizes a parental lock to enable or disable playing of a particular (entire) version (R-rated or G-rated), for example.

As believed clear from applicant's claim language, however, the present invention provides medium protection data which are specific to portions of the main data, which itself should thus be considered as a single signal, or program. To the extent this feature may not have been clearly apparent, the present amendment makes explicit that which was previously at least implicit in the claim language.

Referring to claim 18 of the present application for example, (as amended) the recitation stipulates that the medium protection data are "respectively specific to one or more predetermined data portions within said main data". The meaning of the term "main data" is moreover clear from the specification, as being a set of data expressing a single original signal, which may be a single video signal or a single audio signal, with reproduction protection being applied to that set of main data.

In light of the foregoing, it is clear that in order to support an assertion that the concept of medium protection data that are respectively specific to one or more predetermined data portions within the main data is anticipated by Cookson et al, it is necessary to assume that a plurality of different versions of the same video item, recorded on a single recording disk, constitute respective "data portions within said main data".

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It should be noted however that, in fact, although the Cookson et al disclosure provides for a plurality of sets of ratings data (i.e., recorded in the lead-in portion of an optical recording disk) corresponding to respective ones of a plurality of versions of a video item, (where the versions are each recorded on that recording disk), that plurality of versions does not correspond to the concept of "a (single) original signal", or "(a single set of) main data" of the present invention.

The amendment of claims 18-22 thus clarifies that the main data of the present application indeed express "a single original signal" by providing explicit recitation of the same.

Moreover, Cookson fails to disclose or suggest any feature corresponding to "protection position information which specifies respective positions of said predetermined data portions within said main data as positions at which to apply said reproduction protection..."

That is, the versions information recorded in the lead-in portion of an optical recording disk, may be viewed as indicating the regions on the disk in which the different versions of a video item are recorded. However, such information does not correspond to the recited protection position information, which "specifies respective positions of said predetermined data portions within said main data..." as claimed herein.

Indeed, in the present application it is made clear that the protection position information specifies one or more positions within a single set of main data, with the main data expressing a single original signal (e.g., a single original video signal or audio signal) that is to be the object of reproduction protection.

In the Cookson et al disclosure however, the "version" information recorded on a recording disk can only specify, for each of the versions of a video signal, the locations of the set of regions (e.g., blocks) in which the data of that version are recorded on the disk.

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It should be clear upon consideration of the same that each such "version" may be viewed as corresponding to the main data of a single "original signal" as recited by applicant, and in the sense in which that term is used in the present application, i.e., a set of data which express the entirety of a specific video item or audio item (e.g., the video signal of a specific moving picture). In addition, even if one were to consider the Cookson version information as specifying respective locations of a succession of data blocks which contain the data of a particular version, Cookson et al fail to provide any teaching or suggestion that any specific processing (such as processing which affects the manner in which data blocks are to be reproduced) would be applied to the data conveyed by individual blocks.

It is noted that the Cookson et al disclosure suggests that certain data blocks may contain data which is common to a plurality of different "versions" of a video item which, together, are recorded on a recording disk. However, even such a suggestion does not alter the fact that, when attempting to read the art on applicant's claims, the various different versions of Cookson clearly constitute respectively different "original signals" expressed by respectively different sets of "main data", as those terms are used in the present specification and claims.

For further clarification of this distinction, reference is made to claim 1 of Cookson et al. Therein, the relationship between the concepts of "a signal conveying a single video item or audio item" and the "data expressing such a signal" is clarified. More particularly, it is clear that claim 1 of Cookson is concerned with synchronizing the playback of a video signal of a specific video item with playback of the corresponding audio signal, from a recording disk on which both of these are recorded as respective sets of data. The claim recites:

"... a plurality of signals which are to be played synchronized with each other, said signals being represented on the disk in the form of digital data,..."

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It is thus clear that with Cookson et al, the term "signal" (recorded on a disk) when used in the singular, signifies a single original video signal or audio signal.

Thus, the fact that the Cookson et al disclosure teaches the concept of recording version location information, indicative of the recording locations of data expressing a particular alternative "version" of the main signal, is in no way related to the concept of the present invention with respect to protection position information, that is, information which specifies the locations of specific portions of a (single) set of main data, i.e., with that set expressing a (single) original signal.

With respect to the concept of medium protection data, relevant information is found for example in the portion in lines 59 to 61, column 16 of the Cookson et al disclosure:

"The second bit in the code tells the [optical disk] player whether the parental lock option is to be implemented.....The bit in position 3 of the code is an indication whether version A ... is R-rated or not ... and the fourth bit in the code provides the same information for version B, if there are two versions.."

It is thus clear that, even if the "parental lock" bit or the "version rating" bits were to be considered as being equivalent to medium protection data, these bits, or protection, can only be applied to the entirety of a version and, since a "version" is a single original signal, can only be applied to the entirety of a single set of main data, in the sense in which the terms "original signal" and "main data" are used in the present application.

In the present invention on the other hand, reproduction restriction can be specified, by the medium protection data and the protection position information, for specific individual frames, or even one or more specific regions within (a succession of) frames, of a recorded video signal.

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That is to say, a basic difference between the present application and Cookson et al, (which was not inserted as a limitation in the rejected claims), is as follows. Cookson et al. permits limitation of reproduction only to the entirety of a set of main data expressing an original signal (e.g., the video signal of a motion picture). It is not possible to specify individual portions of the main data as portions to which reproduction protection is to be applied, nor to specify, for each such individual portion, a degree of reproduction protection that is to be applied.

With the present invention, however, medium protection data can be recorded in the recording disk, respectively corresponding to specific portions of the main data. Such specific main data portions can for example consist of specific frames of a video signal, or specific sequences of frames, or a specific region (i.e., one or more macroblocks) within a specific frame, or a specific region within each frame of a specific sequence. This is clearly described for example on page 33 of the specification, and illustrated in Fig. 8 of the drawings.

Furthermore when the data to be reproduced are conveyed in data packs, as described on pages 35 - 36 of the specification, then for example if the data of respective frames of a video signal are conveyed by corresponding packs, each pack conveying a frame to which medium protection (i.e., reproduction restriction) is to be applied, such as the pack 42 shown in Fig. 9, can be preceded by a pack which conveys medium protection information and also protection position information for the corresponding frame.

In the example of Fig. 9, the data pack 44 thus conveys:

(a) medium protection data expressing a medium protection level (with the value of that level expressed as a 3-bit number of units) that is to be applied to the video frame conveyed by pack 42, and

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(b) protection position information expressing the positions of specific macroblocks (within the frame conveyed by pack 42) which are to be subjected to the medium protection (reproduction limitation) at the specified level.

In that example, the protection position information is actually constituted as a combination of the condition that the pack 44 immediately precedes the video data frame 42 (separated only by two audio data packs), so that the contents of pack 44 are to be applied to frame 42, and the macroblock position information conveyed by the pack 44.

It will be apparent that such a capability for applying reproduction restriction selectively to specific frames, frame sequences, or portions of frames of a video signal, with the specified frames and/or frame portions and the level of restriction being freely selectable, has valuable applications in the field of optical recording disks such as DVDs.

Such a capability, which is clearly included in applicant's claims (for example, specifying "respective positions of said predetermined data portions within said main data ... at which to apply said reproduction protection") is clearly not available with the Cookson et al invention, nor is such a capability in any way implied or made obvious by the contents of the Cookson et al disclosure.

Furthermore with the present invention, as now clearly recited in the amended claims, a degree of protection can be specified in the medium protection data as a number of units, which quantify the aforementioned medium protection level. Each of these units corresponds to a predetermined amount of increase in reproduction limitation.

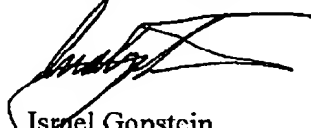
It is well established that an anticipatory reference must teach each and every one of the features of a claim allegedly anticipated thereby. The foregoing has identified a number of differences between the invention is presently recited and the teachings of the Cookson et al.

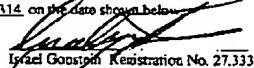
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reference applied thereto. Therefore, it is courteously submitted that the applied art fails to support rejection of applicant's claims under 35 USC 102.

In view of the foregoing, it is respectfully submitted that reconsideration and withdrawal is in order for the rejection set forth in the outstanding Official Action. Upon such withdrawal, it is further submitted that the application is in condition for allowance and an early indication of the same is courteously solicited. In order to expedite resolution of any remaining issues and further to expedite passage of the application to issue, the Examiner is respectfully requested to contact the undersigned by telephone at the below listed local telephone number if any further comments, questions or suggestions arise in connection with the application.

Respectfully submitted,
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FIG. 11

